

Serial No.: 09/818,313

Claim Amendments

Please amend claims 1, 5, 6, 13, 17, and 18 as follows:

Serial No.: 09/818,313

Listing of Claims

1. (currently amended) A method for operating a multi-chamber fabrication tool comprising:

providing a multi-chamber fabrication tool comprising a series of chambers;

first defining for each chamber within the series of chambers a minimum of one fabrication process to provide a series of fabrication processes corresponding with the series of chambers prior to processing a substrate within said series of chambers, wherein at least one fabrication process is undertaken within more than one chamber and at least one chamber has defined therein more than one fabrication process including the at least one fabrication process which is undertaken within more than one chamber;

~~then~~ selecting the at least one chamber for processing the substrate while employing the at least one fabrication process which is undertaken within more than one chamber, the at least one chamber selected to optimize utilization of the multi-chamber fabrication tool, said selection made according to prioritized constraints comprising process constraints with respect to said series of fabrication processes, chamber constraints with respect to said series of chambers, and substrate constraints with respect to said substrate; and,

~~then~~ processing within the multi-chamber fabrication tool

Serial No.: 09/818,313

the substrate while employing the at least one fabrication process which is undertaken within more than one chamber.

2. (original) The method of claim 1 wherein the substrate is employed within a microelectronic fabrication selected from the group consisting of integrated circuit microelectronic fabrications, ceramic substrate microelectronic fabrications, solar cell optoelectronic microelectronic fabrications, sensor image array optoelectronic microelectronic fabrications and display image array optoelectronic microelectronic fabrications.

3. (previously presented) The method of claim 1 wherein the series of chambers comprises at least about four chambers.

4. (previously presented) The method of claim 1 wherein the series of fabrication processes is selected from the group consisting of vacuum etch processes, vacuum deposition processes and vacuum implantation processes.

5. (currently amended) The method of claim 1 further comprising the step prior to the step of selecting of:

defining [[a]] said series of chamber constraints for the series of chambers;

defining [[a]] said series of process constraints for the series of processes; and

defining [[a]] said series of substrate constraints for the substrate.

Serial No.: 09/818,313

6. (currently amended) The method of claim [[5]] 1 wherein the series of chamber constraints, the series of process constraints and the series of substrate constraints is prioritized through use of an algorithm when selecting the chamber within which is processed the substrate.

7. - 12. (canceled)

13. (currently amended) A method for operating a multi-chamber fabrication tool comprising:

providing a multi-chamber fabrication tool comprising a series of chambers;

first defining for each chamber within the series of chambers a minimum of one fabrication process to provide a series of fabrication processes corresponding with the series of chambers prior to processing a substrate within said series of chambers, wherein at least one fabrication process may be undertaken within more than one chamber; and,

~~then~~ processing within the multi-chamber fabrication tool the substrate while employing the at least one fabrication process which may be undertaken within more than one chamber, wherein a chamber within which is processed the substrate while employing the at least one fabrication process which may be undertaken within more than one chamber is selected prior to processing the substrate within said series of chambers such as to optimize utilization of the multi-chamber fabrication tool.

Serial No.: 09/818,313

said selection made according to prioritized constraints comprising process constraints with respect to said series of fabrication processes, chamber constraints with respect to said series of chambers, and substrate constraints with respect to said substrate.

14. (previously presented) The method of claim 13 wherein the substrate is employed within a microelectronic fabrication selected from the group consisting of integrated circuit microelectronic fabrications, ceramic substrate microelectronic fabrications, solar cell optoelectronic microelectronic fabrications, sensor image array optoelectronic microelectronic fabrications and display image array optoelectronic microelectronic fabrications.

15. (previously presented) The method of claim 13 wherein the series of chambers comprises at least about four chambers.

16. (previously presented) The method of claim 13 wherein the series of fabrication processes is selected from the group consisting of vacuum etch processes, vacuum deposition processes and vacuum implantation processes.

17. (currently amended) The method of claim 13 further comprising the step prior to the step of selecting of:

defining [[a]] said series of chamber constraints for the series of chambers;

Serial No.: 09/818,313

defining [[a]] said series of process constraints for the series of processes; and

defining [[a]] said series of substrate constraints for the substrate.

18. (currently amended) The method of claim [[17]] 13 wherein the series of chamber constraints, the series of process constraints and the series of substrate constraints is prioritized through use of an algorithm when selecting the chamber within which is processed the substrate.